
 Substitute Form PTO-1449
 (Modified)

 U.S. Department of Commerce
 Patent and Trademark Office

 Attorney's Docket No.
 10559-478001

 Application No.
 09/878,051

**Information Disclosure Statement
 by Applicant**

(Use several sheets if necessary)

(37 CFR § 1.98(b))

 Applicant
 Thomas M. Cronin

 Filing Date
 June 7, 2001

 Group Art Unit
 2821

U.S. Patent Documents

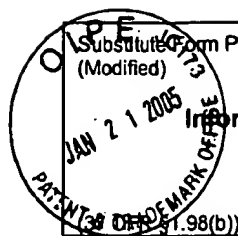
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
HC	AA	4,600,919	07-1986	Stern	345	473	
	AB	4,747,052	05-1988	Hishinuma et al.	250	587	
	AC	4,835,712	05-1989	Drebin et al.	345	423	
	AD	4,855,934	08-1989	Robinson	345	582	
	AE	4,901,064	02-1990	Deering	345	420	
	AF	5,124,914	06-1992	Grangeat	345	50	
	AG	5,163,126	11-1992	Einkauf et al.	345	423	
	AH	5,371,778	12-1994	Yanof et al.	378	9	
	AI	5,611,030	03-1997	Stokes	345	590	
	AJ	5,731,819	03-1998	Gagne et al.	345	647	
	AK	5,757,321	05-1998	Billyard	345	420	
	AL	5,786,822	07-1998	Sakaibara	345	582	
	AM	5,805,782	09-1998	Foran	345	420	
	AN	5,809,219	09-1998	Pearce et al.	345	420	
	AO	5,812,141	09-1998	Kamen et al.	345	587	
	AP	5,847,712	12-1998	Salesin et al.	345	582	
	AQ	5,894,308	04-1999	Isaacs	345	420	
	AR	5,929,860	07-1999	Hoppe	345	419	
	AS	5,933,148	08-1999	Oka et al.	345	427	
	AT	5,949,969	09-1999	Suzuoki et al.	345	1.17	
	AU	5,966,133	10-1999	Hoppe	345	420	
	AV	5,966,134	10-1999	Arias	345	689	
	AW	5,974,423	10-1999	Margolin	345	606	
	AX	6,054,999	04-2000	Strandberg	345	474	
	AY	6,057,859	05-2000	Handelman et al.	345	474	
	AZ	6,078,331	06-2000	Pulli et al.	345	423	
HC	AAA	6,115,050	09-2000	Landau et al.	345	619	

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HC	ABB	6,175,655	01-2001	George et al.	382	257	
	ACC	6,191,787	02-2001	Lu et al.	345	418	
	ADD	6,191,796	02-2001	Tarr	345	581	
	AEE	6,198,486	03-2001	Junkins et al.	345	415	
	AFF	6,201,549	05-2001	Bronskill	345	441	
	AGG	6,208,347	03-2001	Migdal et al.	345	415	
	AHH	6,219,070	04-2001	Baker et al.	345	475	
	AII	6,239,808	05-2001	Kirk et al.	345	582	
	AJJ	6,252,608	06-2001	Snyder et al.	345	473	
	AKK	6,262,737	07-2001	Li et al.	345	419	
	ALL	6,262,739	07-2001	Migdal et al.	345	423	
	AMM	6,292,192	09-2001	Moreton	345	586	
	ANN	6,317,125	11-2001	Persson	345	423	
	AOO	6,337,880	01-2002	Cornog et al.	375	240.01	
	APP	6,388,670	05-2002	Naka et al.	345	474	
	AQQ	6,405,071	06-2002	Analoui	600	425	
	ARR	6,437,782	08-2002	Pieragostini et al.	345	426	
	ASS	6,478,680	11-2002	Yoshioka et al.	463	43	
	ATT	6,559,848	05-2003	O'Rourke	345	473	
	AUU	6,593,924	07-2003	Lake et al.	345	426	
	AVV	6,593,927	07-2003	Horowitz et al.	345	473	
	AWW	6,608,627	08-2003	Marshall et al.	345	619	
	AXX	6,608,628	08-2003	Ross et al.	345	619	
	AYY	2001/0026278	10-2001	Arai et al.	345	474	
HC	AZZ	2002/0101421	08-2002	Pallister			

Foreign Patent Documents or Published Foreign Patent Applications

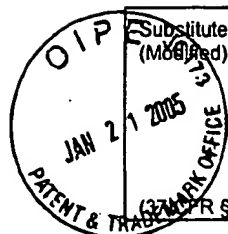
Examiner	Desig.	Document	Publication	Country or	Class	Subclass	Translation
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	AAAA							

Other Documents (include Author, Title, Date, and Place of Publication)

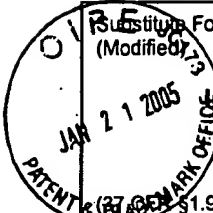
Examiner Initial	Desig. ID	Document
HC	ABBB	Appel, Arthur, "The Notion of Quantitative Invisibility and the Machine Rendering of Solids." Proceedings of 22nd National Conference Association for Computing Machinery 1967.
	ACCC	Buck et al., "Performance-Driven Hand Drawn Animation", <u>ACM</u> (NPAR2000), pgs. 101 - 108 (2000).
	ADDD	Catmull et al., "Recursively Generated B-Spline Surfaces on Arbitrary Topological Meshes," <u>Computer Aided Design</u> , 10(6):350 - 355 (1978).
	AEEE	Coelho et al., "An Algorithm for Intersecting and Trimming Parametric Meshes", <u>ACM SIGGRAPH</u> , pgs. 1 - 8 (1998).
	AFFF	Deering, M., "Geometry Compression," <u>Computer Graphics</u> . SIGGRAPH '95, pages 13-20, 1995.
	AGGG	DeRose et al., "Subdivisional Surfaces in Character Animation", <u>ACM</u> , SIGGRAPH'98, pgs. 85 - 94 (1998).
	AHHH	Elber, Gershon, "Interactive Line Art Rendering of Freeform Surfaces", <u>Eurographics'99</u> , 18(3):C1 - C12 (1999).
	AIII	Gooch et al., "A Non-Photorealistic Lighting Model for Automatic Technical Illustration," <u>Computer Graphics Proceedings, Annual Conference Series</u> , SIGGRAPH'98, pgs. 447-452 (1998).
	AJJJ	Gooch et al., "Interactive Technical Illustration," <u>ACM Interactive 3D</u> , pgs. 31 - 38 (1999).
	AKKK	Heidrich et al., "Realistic, Hardware-Accelerated Shading and Lighting," <u>ACM</u> , (SIGGRAPH'99), pgs. 171 - 178 (1999).
	ALLL	Hoppe, H., "View-Dependent Refinement of Progressive Meshes", URL: http://www.research.microsoft.com/~hoppe/ (10 pgs.).
	AMMM	Kumar et al., "Interactive Display of Large Scale NURBS Models", <u>ACM</u> , Symp. On Interactive 3D Graphics, pgs. 51 - 58 (1995).
	ANNN	Lake et al., "Stylized Rendering Techniques for Scalable Real-Time 3D Animation", NPAR, pgs. 101 - 108 (2000).
	AOOO	Lander, Jeff, "Making Kine More Flexible," <u>Game Developer Magazine</u> , 5 pgs., November 1998.
	APPP	Lander, Jeff, "Skin Them Bones," <u>Game Developer Magazine</u> , 4 pgs., May 1998.
HC	AQQQ	Pedersen, "A Framework for Interactive Texturing on Curved Surfaces", <u>ACM</u> , pgs. 295 - 301 (1996).

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	Information Disclosure Statement by Applicant (Use several sheets if necessary)		Applicant Thomas M. Cronin	
			Filing Date June 7, 2001	Group Art Unit 2821

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
He	ARRR	"pmG Introduces Messiah: Animate 3.0", URL: http://www.digitalproducer.com/aHTML/Articles/july_2000/july_17_00/pmg_intros_messiah_animate.htm (Accessed 10/26/2004) 2 pgs.
	ASSS	Pueyo, X. et al., "Rendering Techniques '96," Proc. of Eurographics Rendering Workshop 1996, EUROGRAPHICS, p[gs. 61 - 70 (1996).
	ATTT	Rockwood, A. et al., "Real-time Rendering of Trimmed Surfaces," Computer Graphics (SIGGRAPH '89 Proceedings) 23:107 - 116 (1989).
	AUUU	Sousa, M., et al., "Computer-Generated Graphite Pencil Rendering of 3-D Polygonal Models", Eurographics'99, 18(3):C195 - C207 (1999).
	AVVV	Stam, J., "Exact Evaluation of Catmull-Clark Subdivision Surfaces at Arbitrary Parameter Values", SIGGRAPH 98 Conference Proceedings, Annual Conference Series, pgs. 395-404 (1998).
	AWWW	Taubin et al., "3D Geometry Compression", SIGGRAPH'98 Course Notes (1998).
He	AXXX	Wilhelms, J. & Van Gelder, A., "Anatomically Based Modeling," Univ. California Santa Cruz [online], 1997 [retrieved 12/22/2004], retrieved from the Internet: <URL: http://graphics.stanford.edu/courses/cs448-01-spring/papers/wilhelms.pdf >.

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2671**U.S. Patent Documents**

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
HC	AA	US3,739,082	06/12/1973	Lippel	348	574	
	AB	US 4,600,919	07/15/1986	Stern	345	473	
	AC	US 6,057,859	05/02/2000	Handelman et al.	345	474	OCT 02 2003
	AD	US 6,337,880	01/08/2002	Cornog et al.	375	240.1	Technology Center 2600
	AE	US 6,388,670	05/14/2002	Naka et al.	345	474	
	AF	US 6,208,347	03/27/2001	Migdal et al.	345	419	
	AG	US 5,163,126	11/10/1992	Einkauf et al.	345	423	
	AH	US 5,124,914	06/23/1992	Grangeat	378	50	
HC	AI	US 5,731,819	03/24/1998	Gagne et al.	345	647	

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	AJ							
	AK							
	AL							
	AM							
	AN							

Other Documents (include Author, Title, Date, and Place of Publication)

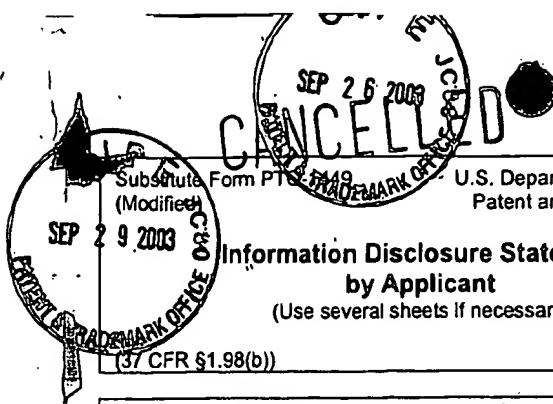
Examiner Initial	Desig. ID	Document
HC	AO	Lewis "Pose Space Deformation: A Unified Approach to Shape Interpolation and Skeleton-Driven Deformation" Centropolis, New Orleans, LA, 165-172
	AP	Lasseter "Principles of Traditional Animation Applied to 3D Computer Animation" Pixar, San Rafael, California, 1987
	AQ	Thomas (Contributor) et al., "The Illusion of Life: Disney Animation" 47-51
	AR	Hoppe, "Progressive Meshes" Microsoft Research, 99-108, http://www.research.microsoft.com/research/graphics/hoppe/
	AS	Popovic et al., "Progressive Simplicial Complexes" Microsoft Research, http://www.research.microsoft.com/~hoppe/
HC	AT	Hoppe "Efficient Implementation of progressive meshes" Coput. & Graphics Vol. 22, No. 1, pp. 27-36, 1998.

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HK	AU	Taubin et al., "Progressive Forest Spilt Compression" IBM T.J. Watson Research Center, Yorktown Heights, NY
	AV	Cohen-Or et al., "Progressive Compression of Arbitrary Triangular Meshes" Computer Science Department, School of Mathematical Sciences, Tel Aviv, Israel
	AW	Bajaj et al., "Progressive Compression and Transmission of Arbitrary Triangular Meshes" Department of Computer Sciences, University of Texas at Austin, Austin, TX
	AX	Pajarola et al., "Compressed Progressive Meshes" Graphics, Visualization & Usability Center, College of Computing, Georgia Institute of Technology, January 1999
	AY	Alliez et al., "Progressive Compression for Lossless Transmission of Triangle Meshes" University of Southern California, Los Angeles, CA, 195-202
	AZ	Chow "Optimized Geometry Compression for Real-time Rendering" Massachusetts Institute of Technology, Proceedings Visualization 1997, October 19-24, 1997, Phoenix, AZ, 347-354
	AAA	Markosian "Real-Time Nonphotorealistic Rendering" Brown University site of the NSF Science and Technology Center for Computer Graphics and Scientific Visualization, Providence, RI
	ABB	Elber "Line Art Rendering via a Coverage of Isoperimetric Curves, IEEE Transactions on Visualization and Computer Graphics, Vol. 1, Department of Computer Science, Technion, Israel Institute of Technology, Haifa, Israel, September 1995
	ACC	Zelevnik et al., "SKETCH: An Interface for Sketching 3D Scenes" Brown University site of the NSF Science and Technology Center for Computer Graphics and Scientific Visualization, 1996
	ADD	Landsdown et al., "Expressive Rendering: A Review of Nonphotorealistic Techniques" IEEE Computer graphics and Applications, 29-37, 1995
	AEE	Raskar "Image Precision Silhouette Edges" University of North Carolina at Chapel Hill, Microsoft Research, 1999 Symposium on Interactive 3D Graphics Atlanta, GA, 135-231, 1999
	AFF	Ma et al., "Extracting Feature Lines for 3D Unstructured Grids" Institute for Computer Applications in Science and Engineering (ICASE), NASA Langley Research Center, Hampton, VA, IEEE, 1997
	AGG	Samet "Applications of spatial data structures: computer graphics, image processing, and GIS" University of Maryland, Addison-Wesley Publishing Company, 1060-1064, Reading, MA, June 1990
	AHH	Dyn "A Butterfly Subdivision Scheme for Surface Interpolation with Tension Control" ACM Transactions on Graphics, Vol. 9, No. 2, April 1990
	AII	Zorin "Interpolation Subdivision for Meshes With Arbitrary Topology" Department of Computer Science, California Institute of Technology, Pasadena, CA
HC	AJJ	Lee "Navigating through Triangle Meshes Implemented as linear Quadtrees" Computer Science Department, Center for Automation Research, Institute for Advanced Computer Studies, University of Maryland College Park, MD, April 1998
	AKK	
	ALL	
	AMM	
	ANN	

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